

REMARKS

This is intended as a full and complete response to the Office Action dated March 21, 2007, having a shortened statutory period for response set to expire on June 21, 2007. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-46 remain pending in the application and are shown above. Claims 2-5, 27-30, and 40-46 stand withdrawn, and claims 1, 6-26, and 31-39 are rejected by the Examiner. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 1, 8, 12-13, 25-26, and 33 are amended to further specify the intended composition of the invention. Claims 14 and 37 have been canceled.

Claim Rejections Under 35 USC § 102

Claims 1, 6, 8-18, 21-26, and 31-39 are rejected under 35 U.S.C. 102(b) as being anticipated by *Hay et al.* (US 6,278,811 B1).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In response, Applicants have amended claims 1 and 33 to further specify the intended composition. Claim 1 has been amended to include a mandrel with a pre-defined groove for routing an optical fiber, which is not disclosed by *Hay et al.* The Examiner argues that *Hay et al.* discloses a mandrel "wherein the mandrel defines at least one groove for routing optical fibers," as stated in claim 1. However, the cited passage is in fact referenced to a coil of fiber **110, 108 FIG.7** that is fused into the

surface of the walls. The coils at most becomes recessed when they are fused to the mandrel, but are not routed through pre-defined grooves.

Claim 33 has been amended to include a pre-defined tunnel for routing an optical fiber and also routing the fiber through this tunnel and then wrapping the fiber around the mandrel which is also not disclosed by *Hay et al.* The Examiner argues that *Hay et al.* discloses a mandrel “wherein the mandrel defines at least one tunnel from one end of the mandrel to another end for routing of an optical fiber,” as stated in claim 33. However, the cited passage is in fact referenced to a fiber **124 FIG. 8** which is attached to the inside of the mandrel and *Hay et al.* does not disclose that same fiber **124** as then being wrapped around the mandrel.

Applicants respectfully traverse the rejection of claim 21.

In this case, *Hay et al.* does not disclose “...each and every element as set forth in the claim...” For example, *Hay et al.* does not disclose the mandrel as being non-rigidly mounted to the housing since *Hay et al.* is silent with respect to any special way of mounting that would provide the claimed “non-rigid coupling.”

Claims 1, 21, and 33 and all claims dependent on claim 1, 21, or 33 are not anticipated by *Hay et al.* and are allowable. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1, 6, 8-18, 21-26, and 31-39 and allowance of the claims.

Claim Rejections Under 35 USC § 103

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Hay et al.* (US 6,278,811 B1).

Applicants respectfully traverse the rejection of claim 7.

As stated above *Hay et al.* does not teach all of the elements of the amended claim 1. Therefore claim 7 which is dependent on claim 1 is allowable.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hay et al.* (US 6,278,811 B1) in view of *Mendez et al.* (“Micromachined Fabry-Perot interferometer with corrugated silicon diaphragm for fiber optic sensing applications”).

Applicants respectfully traverse the rejection of claims 19 and 20.

As stated above in the argument of the 35 U.S.C. 102(b) rejections, *Hay et al.* does not teach the use of a pre-defined groove on the sensing mandrel for routing the optical fiber as stated in the amended claim 1. Further, *Mendez et al.* fails to overcome this deficiency. Therefore, claims 19 and 20 which are dependent on claim 1 are allowable.

Claim 1 and all claims dependent on claim 1 are not rendered obvious by *Hay et al.*, *Mendez et al.*, or any combination thereof and are allowable. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 7, 19, and 20 and allowance of the claims.

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

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